

19990205.ba v02_n415.bam.990205 v02_n416.bam.990205

>From ???@??? Sat Feb 06 06:50:30 1999
Date: Fri, 5 Feb 1999 12:00:02 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2415
Message-Id: <19990205174950.0EA60114ED@devel43.theporch.com>

BOATANCHORS Digest 2415

Topics covered in this issue include:

- 1) RT-68 OTA
by Dick Dillman <ddillman@igc.apc.org>
- 2) What ever happened to Atlas
by "Al Fritsche" <fritsche@email.msn.com>
- 3) Re: collins 18S-4
by Steve Rohrer <srohrer@mindspring.com>
- 4) Re: What ever happened to Atlas
by thompson@mindspring.com
- 5) Steve Rohrer Re: SP-600 Manual
by jcall@sirius.com
- 6) Fw: R-1004 WANTED
by "Wayne & Deb Harrah" <harrah@ia.net>
- 7) HT-37 problem
by W4UOC@aol.com
- 8) Buzzing Dow Key help!
by polepeeg@aaa4rm.ba-watch.org (Marty's Refl. Drop)
- 9) Resistors again...
by "Barry L. Ornitz" <ornitz@tricon.net>
- 10) Need Yaesu FL2100 bandswitch
by zeitler@ibm.net
- 11) T-195 STUFF
by Maurice Weinschenker <morry@ix.netcom.com>
- 12) Relay Tool
by JIM_ALLEN@HP-Cupertino-om5.om.hp.com
- 13) Re: Relay Tool
by Garey Barrell <k4oah@mindspring.com>
- 14) BC-36
by "Mike B. Feher" <n4fs@monmouth.com>
- 15) How things used to be
by ail0@lehigh.edu (ARTHUR I. LARKY)
- 16) WTB: HRO stuff et al
by Tom Smith <tsmith@hal-pc.org>
- 17) Resistors and designs
by ail0@lehigh.edu (ARTHUR I. LARKY)
- 18) Re: How things used to be

- by William Donzelli <william@ans.net>
- 19) Re: Zenith 6S229 Diagram
by Andre Guibert <aguibert@sympatico.ca>
 - 20) Re: Relay Tool
by Edward Zeranski <ejz@nosc.mil>
 - 21) ADMINISTRIVIA: Using The Archives
by listown@jackatak.theporch.com (Mail List Owner)
 - 22) Entry-Level Scope For Sale
by Sandy Gerli <angerli@esslink.com>
 - 23) TBS, DAK, & info needed for BB-35 restoration
by Sheldon Wheaton <swheaton@sky.net>

Date: Thu, 4 Feb 1999 15:54:13 -0800 (PST)
Message-Id: <2.2.16.19990204155255.50371034@pop.igc.org>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Dick Dillman <ddillman@igc.apc.org>
Subject: RT-68 OTA

Careful readers of these pagers may remember that back in December of last year I carried home from Mr. Quaakelstein's shop in The Netherlands a military RT-68 set complete with power supply, mounting rack and accessories. There was a bit of an arched eyebrow on the part of the customs man at JFK but eventually everything made it in good shape to San Francisco.

The first attempt to put the radio on the air was a bit disappointing. The expected 16W of RF was more like 4W. But still, a scratchy trans-Bay QSO was conducted with fellow military radio nut... er, I mean enthusiast WA6OPE. Over the last week I've been fully "into" the RT-68. What a marvel of compactness and mechanical and electrical complexity. Last night, after several days of vigorous tweakin' and peakin' 12W of real RF was squeezed from the beast - close enough! The repair of a broken wire actually gave me speaker audio and it was time for another radio check. This time trans-Bay signals were FB.

Tom and I settled on 51.0Mc/s as the military radio FM calling frequency, primarily because so many PRC-6 radios (including mine!) seem to have crystals for this frequency. The RT-68 is an interesting radio and fun to operate.

Now that it's actually working I plan to make it part of my exhibit of operational radios (along with AN/GRC-9, AN/GRC-109 and RS-6) at the Military Radio Collectors Group meet later this year in San Louis Obispo, CA. This meet is highly recommended, by the way, if you have even a slight

interest in green radios.

Regards,

Dick

Dick Dillman
<ddillman@igc.apc.org>
WPE2VT W6AWO
Collector Of Heavy Metal:
Harleys, Willys and Radios Over 100lbs.

Message-ID: <001501be509c\$0a60f840\$6168fed0@default>
From: "Al Fritsche" <fritsche@email.msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: What ever happened to Atlas
Date: Thu, 4 Feb 1999 18:10:31 -0600

Hi gang, I know I will be put in the penalty box for this but,
what ever happened to Atlas ... Did Swan buy them out.
Reason I ask is that I have a nice 206 remote VFO and
am about to scrap it for the nice 6/1 jackson dials.
Hate to ask the question on the BA NG as all would say
put it on ebay... and then bitch about why it was there

73 Al
KD5CML
fritsche@email.msn.com

Message-ID: <36BA3CCC.E3775B32@mindspring.com>
Date: Thu, 04 Feb 1999 19:35:24 -0500
From: Steve Rohrer <srohrer@mindspring.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: collins 18S-4
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

2 - 18 mhz, AM, 20 channel xyal controlled, 100 watts out. Receiver
runs from 28 VDC input. Xmitter requires 400 and 1100 vdc if I recall
correctly, or just 28 VDC at about 20 amps if the dynamotor is

installed. Have one on the air here.

Steve - KA4RSZ

Ken Warren wrote:

> Anyone know what a collins 18S-4 aircraft HF transceiver is?
>
> Ken Warren K7RPX

From: thompson@mindspring.com
Message-ID: <005901be50a3\$6e2bad00\$37a445cf@default>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: What ever happened to Atlas
Date: Thu, 4 Feb 1999 20:04:05 -0500

Al,

Atlas cane after Swan. The company closed down with the 350 transceiver for a number of years. Now Swan sold out to CUBIC Corporation who also made Siltronix who made CB gear. Siltronix became a services firm and closed down 2 or 3 years ago. Cubic is a big Govt contractor. One of their products is the fare changing equipment used by MARTA and BART (transportation systems). Atlas (Herb Johnson) tried to re-start several years ago and announced a transceiver but final went bust leaving hundreds getting nothing for their money. Don't know about repair or spare parts, but Grace Brock at Brock Publications in San Diego can get manuals for most any Swan, Cubic, Siltronix, or Atlas gear. She may know if there is anyone with a stock of parts or capable of maintaining the gear.

Dave K4JRB

>Hi gang, I know I will be put in the penalty box for this but,
>what ever happened to Atlas ... Did Swan buy them out.
>Reason I ask is that I have a nice 206 remote VFO and
>am about to scrap it for the nice 6/1 jackson dials.
>Hate to ask the question on the BA NG as all would say
>put it on ebay... and then bitch about why it was there
>
>73 Al
>KD5CML
>fritsche@email.msn.com
>
>

>

From: jcall@sirius.com
Message-Id: <199902050208.SAA27713@mail2.sirius.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Steve Rohrer Re: SP-600 Manual
Date: Fri, 5 Feb 99 02:08:49 +0000

Hi Steve,

I mailed the Northern Radio Type 159 manual out to you 2/23/99 and am wondering if you received it ok ?

73s

Jim

Carrington

Message-ID: <014901be50b3\$8c010e00\$58d0a0cd@default>
From: "Wayne & Deb Harrah" <harrah@ia.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Fw: R-1004 WANTED
Date: Thu, 4 Feb 1999 20:59:25 -0600
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

This is a resend; the server didn't like a word combination I used.

>Everyone,

>

>Please_include MY NAME to the R-1004 WTB list, too.

>

>I, too, bought one of those RT-3s from FAIR, and need a matching receiver
>now. If I have to, I can probably manage to buy a whole GRC-109 if I had
>to

>to get the receiver.

>

>Thanks for jogging my memory, Robert. I meant to post this awhile back and
>forgot.

>

>Buzz, ke0ms

><http://www.ia.net/~harrah/>

>work email :Wayne.Harrah@mci.com

>home email: harrah@ia.net

>

>

From: W4UOC@aol.com
Message-ID: <2998ac4b.36ba7070@aol.com>
Date: Thu, 4 Feb 1999 23:15:44 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: HT-37 problem
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit

I am restoring a Hallicrafters HT-37. Seem to have a problem I can't figure out.

It works fine on SSB with VOX but the VFO seems to be on all of the time except when in the standby position. AM works fine if you switch from standby to MOX in the DSB position but if you try to operate DSB in the VOX position there is some carrier output at all times and it increases if you activate the VOX or key the MOX line with ptt (grounding the MOX line)

There should not be any carrier unless you key the MOX line with either VOX, PTT or MOX.

If I set it up for DSB in VOX and then key the PTT the output increases to about double the resting level.....which should not be there at all. It appears that the cutoff bias is not working yet the bias voltages on all the tubes seems to be in range of the voltages so indicated on the voltage chart.

Any ideas????

Tom Koch - W4UOC
Atlanta, GA

Date: Thu, 4 Feb 1999 23:45:54 -0500
From: polepeeg@aa4rm.ba-watch.org (Marty's Refl. Drop)
Message-Id: <199902050445.XAA18250@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Buzzing Dow Key help!

As the AWA & CX draws nigh, I thot I'd "fix" a goofy coax relay on KW1 night... exhibit D is on a 32V3/51J4.

The dang thing, tho 110VAC, "sticks" in xmit. So I popped it's top off

its coil assy. & locktited the disc-armature to the brass operating rod (for the contacts) thinking that the cause.

WRONG

Big buzz city

So I took her back apart & freed the disc armature to again rotate on above-said brass operating rod.

Buzz persists.

So what'd I ever forget? Did something fall out when I "popped the top"

Thanks,

Marty

From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Resistors again...
Date: Fri, 5 Feb 1999 01:17:07 -0500
Message-ID: <01be50cf\$283273c0\$4a4d62d8@ornitz.dpnnet.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="utf-8"
Content-Transfer-Encoding: 7bit

Let me say thanks to several people here...

My thanks to Art Larky for talking about 'the way things used to be' in resistor manufacturing. We tend to think of resistors and capacitors as lowly passive components but there is really considerable art and science to them too - just as in vacuum tubes. Resistor manufacturing is a high-tech industry today.

I am still amazed by the enormous technology that went into every vacuum tube. A given type number is exceptionally well matched in performance characteristics. It has taken a great deal of effort and many years for the semiconductor industry to achieve the same reproducibility. As people like Hank Van Cleef (who did quite a bit of design with the early semiconductors) will tell you, the engineers learned new ways of designing circuits so that variations from one transistor to the next would not hurt the design. And then integrated circuit technology introduced circuits based on matched semiconductors on a chip (the variations from one silicon wafer to the next might be huge, but all devices on a single wafer were well matched). I tend to believe the engineers got their ideas from early

vacuum tube operational amplifier designers.

I also agree with Scott Robinson's approach of using the better modern resistors. Metal film resistors cost so little above carbon film units that it is hardly worth using anything else. The metal film units are very stable with time, temperature, and humidity, and also have low noise properties - something that cannot be said about the old carbon composition units. Just remember modern resistors have a specified voltage rating that you should not exceed. [The old carbon composition units also had a voltage rating, but many designers got away with ignoring it. Heath paid a big price for this in one of their color TV kits.]

Finally thanks to Jerry Proc for asking about inductance in metal film resistors. This is an interesting issue and one that the audiophools worry over a lot. If you look at the spiral cut of a metal film resistor you can get a good approximation of its inductance. But because the conductor is highly resistive, the skin effects can usually be ignored. I have seen little published information on the actual inductance of film resistors. In fact, I spent over 2 hours this evening trying to find any published information - without any luck. [I did learn that most of the old "big names" in resistors are now owned by foreign companies.]

Looking at several spiral-cut metal film resistors, I estimate the inductance to be typically 5 to 50 nanohenries. So at 1 GHz (1000 MHz), this would add 31.4 to 314 ohms of inductive reactance. But the shunt capacitance of these diodes is in the range of 1 to 3 pF. Also at 1 GHz, this would add about 160 to 477 ohms of shunt capacitive reactance. If you plot the magnitude of the impedance versus frequency for a 1Kohm, 25 nH, 3 pF resistor, it remains close to 1000 ohms until above 100 MHz where it begins to drop rapidly. [And this analysis ignores the wire leads which also add inductance.]

For the "purest" resistors (those with low series inductance and low shunt capacitance) modern chip resistors are probably the best you can buy "off the shelf". Even here, it is important to minimize the stray reactances associated with the mounting of the chip. Also shunt capacitance still dominates.

73, Barry L. Ornitz WA4VZQ ornitz@tricon.net

From: zeitler@ibm.net
Message-ID: <002701be50cf\$d0b30c80\$6f292581@km3g>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Need Yaesu FL2100 bandswitch
Date: Thu, 4 Feb 1999 22:21:43 -0800

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Help!! I desperately need the output side of the bandswitch for a Yaesu FL-2100B. Option two is does anyone know if there is a known replacment available anywhere?

Any help greatly appreciated.

Lane Zeitler
Ku7i

Message-ID: <36BAF329.A76F51@ix.netcom.com>
Date: Fri, 05 Feb 1999 08:33:29 -0500
From: Maurice Weinschenker <morry@ix.netcom.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: T-195 STUFF
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

JUST CAME INTO A VRY SAD T-195. HAS BEEN STRIPPED BUT MANY PARTS REMAINING. THE PTO, FREQ MULTIPLIER ASSEMBLY AND ALL GEAR TRAINS ARE STILL INTACT. AT THIS POINT I'M CONSIDERING USING PTO AND MULTIPLIER FER A QRP RIG. MAYBE THIS ISN'T COST EFFECTIVE????
ARE THESE ASSEMBLIES NEEDED FER RESTORERS?????????????. OF COURSE ALL THE KNOBS , PLUGS ETC. ARE STILL THEIR. I HAVE REMOVED THE 2 DYNAMOTORS SO FAR. ARE THEIR ANY OFFERS FOR THE DYNAMOTORS????
ANY COMMENTS WUD BE APPRECIATED.
BEST 73 MORRY K3DPJ

From: JIM_ALLEN@HP-Cupertino-om5.om.hp.com
Date: Fri, 5 Feb 1999 06:25:32 -0800
Message-Id: <H000030e0c5b6112@MHS>
Subject: Relay Tool
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Content-Type: text/plain; charset=US-ASCII; name="cc:Mail"
Content-Disposition: inline; filename="cc:Mail"
Content-Transfer-Encoding: 7bit

Does anyone know where to buy burnishers for cleaning relay contacts?

Thanks,

Jim

Message-Id: <3.0.1.32.19990205093709.0068d56c@pop.mindspring.com>
Date: Fri, 05 Feb 1999 09:37:09 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Garey Barrell <k4oah@mindspring.com>
Subject: Re: Relay Tool
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Jim -

General Cement (GC) still has several. These are the little blades with a plastic coating molded onto one end. There is the 9337 which is a very narrow blade (0.120"), and the 9338 which is the 1/4" wide "normal" width. There are also a couple of kits with 2 or 4 of the above along with a liquid cleaner / lubricant.

My local R-S supplier has the single tools, and can get the kits. I would imagine that Jensen or Techni-Tool would also have them. I have seen one that looks like a ball-point pen that has replaceable blades. They are expensive (\$15) and usually won't fit where I need to use them, so usually end up using just the blade!!

73, Garey - K40AH

At 06:25 AM 2/5/99 -0800, JIM_ALLEN@HP-Cupertino-om5.om.hp.com wrote:
> Does anyone know where to buy burnishers for cleaning relay contacts?
>
> Thanks,
>
> Jim
>
>

Message-ID: <001401be5131\$2f42b1e0\$2e19bfd1@n4fs>
From: "Mike B. Feher" <n4fs@monmouth.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BC-36
Date: Fri, 5 Feb 1999 09:58:46 -0800
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

By popular demand I have taken an outside and inside photo of my GE type D crystal receiver (BC-36). As can be seen it is a very high quality receiver, from a construction point of view, for 1916. It could look prettier but it is totally un-restored. Will be glad to answer any questions. To see it go to:

<http://www.monmouth.com/~n4fs/typeD.jpg>

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell, NJ, 07731
732-901-9193

Message-Id: <199902051512.KAA32462@ns2-1.CC.Lehigh.EDU>
Date: Fri, 05 Feb 1999 10:12:17 EST
From: ail0@lehigh.edu (ARTHUR I. LARKY)
Subject: How things used to be
To: Old Tube Radios <boatanchors@theporch.com>

Barry Ornitz' comment brings to mind another 'the way things used to be'---

>I am still amazed by the enormous technology that went into every vacuum
>tube. A given type number is exceptionally well matched in performance
>characteristics. It has taken a great deal of effort and many years for
>the semiconductor industry to achieve the same reproducibility. As people
>like Hank Van Cleef (who did quite a bit of design with the early
>semiconductors) will tell you, the engineers learned new ways of designing
>circuits so that variations from one transistor to the next would not hurt
>the design.

The old way: I had a conversation with a person who designed radios and TVs in the late 40's. He said they would build a prototype and then start removing resistors and capacitors from the prototype until it stopped working. They would put back the last part removed and that was their design. He claimed that you could shoot holes in the thing and it would still work once you removed all the 'non-essential' parts.

The new way: I did some consulting for the Autonetics Division of North American Aviation doing "worst-case" design on the Minuteman and Hound Dog missiles. The idea was to figure the range of variation in characteristics of all of the parts in the circuit and then decide which extreme value was for each part would produce the worst result.

You put all the extreme values into the calculation to see if it would still

work. If not, you would calculate which part had the greatest effect and replace it with a part with less variability. If you could not do that, you would have to re-design the circuit to get rid of its sensitivity to parts drift.

Each part was assigned a failure probability and the whole thing had to meet a certain probability specification. Interestingly enough, the part with the highest failure probability (and therefore to be avoided whenever possible) was a circuit board jumper wire. Not because it would fail, but because the assemblers on the line would forget to put it into place!

They also checked the voltages and currents to make certain that parts were not being over-stressed. They found that a relay in one piece of equipment was being used well beyond its contact ratings, but there were no field reports of failures. So they asked one of the crew chiefs if the part ever failed. He said "Naw, we just pull the circuit board and bang it on the desk a few times before we start things up. It works ok"!!!

Art K3HBA

Message-ID: <36BAB711.ACF0B8EB@hal-pc.org>
Date: Fri, 05 Feb 1999 09:17:06 +0000
From: Tom Smith <tsmith@hal-pc.org>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTB: HRO stuff et al
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I'm looking for the below listed items. Might be able to pick up some of this stuff in the "Houston Vintage Radio Assn." auction this weekend but I'm not holding my breath. If you have a uncontrollable desire to dispose of any of this "stuff" please drop me a line.

E, F & H Coils for the National HRO-5 receiver.

Fluke model 407 high voltage bench supply.

Pair of 826 to fit the Gonset 6 meter amplifier that is the companion to the Gonset Communicator.

Thanks! Tom Smith N5AMA

Message-Id: <199902051522.KAA33516@ns2-1.CC.Lehigh.EDU>
Date: Fri, 05 Feb 1999 10:21:25 EST

From: ail0@lehigh.edu (ARTHUR I. LARKY)
Subject: Resistors and designs
To: Old Tube Radios <boatanchors@theporch.com>

Continuing Barry Ornitz' thread about parts:

>the design. And then integrated circuit technology introduced circuits
>based on matched semiconductors on a chip (the variations from one silicon
>wafer to the next might be huge, but all devices on a single wafer were
>well matched). I tend to believe the engineers got their ideas from early
>vacuum tube operational amplifier designers.

The thing that has made digital design so successful is that, unlike analog circuits, the actual voltages that you get from the circuit don't matter. Analog circuits are designed for a given output signal for a given input; digital circuits don't care. If the output of a TTL gate is lower than some specified value, its a "0", if its above a certain value, its a "1". Inputs have the same kind of range so that it really doesn't matter if you get 2.9 volts or 3.776 volts or 4.98 volts out, its a "1" to everyone else in the circuit. Try building an analog circuit that is accurate to 1 part in 1000; a digital circuit with 10 identical flip-flops can represent a number to 1 part in 1024.

Art K3HBA

Date: Fri, 5 Feb 1999 10:41:23 -0500 (EST)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: How things used to be
Message-Id: <Pine.GS0.3.96.990205103715.6914A-1000000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> >I am still amazed by the enormous technology that went into every vacuum
> >tube. A given type number is exceptionally well matched in performance
> >characteristics. It has taken a great deal of effort and many years for
> >the semiconductor industry to achieve the same reproducibility.

Keep in mind, however, that it also took the vacuum tube industry a long time to get the same reproducibility. Tubes from the 1910s and 20s tended to be rather awful devices, varying all over the place in terms of performance. Most of the time this did not matter much because of the crude radio designs. Even in the 1930s, things were not all ironed out, but much better.

William Donzelli
william@ans.net

Date: Fri, 5 Feb 1999 10:50:21 -0500 (EST)
Message-Id: <199902051550.KAA06161@smtp11.bellglobal.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Andre Guibert <aguibert@sympatico.ca>
Subject: Re: Zenith 6S229 Diagram

Bonjour to All

Looking for the Zenith 6 S-229 diagram, my tech. library

(Radio College of Canada) does not list it.

Does not have to be in French Canadian. :)

Andre

johanne

Message-Id: <3.0.1.32.19990205080831.009b07b0@marlin.nosc.mil>
Date: Fri, 05 Feb 1999 08:08:31 -0800
To: Old Tube Radios <boatanchors@theporch.com>
From: Edward Zeranski <ejz@nosc.mil>
Subject: Re: Relay Tool
Cc: boatanchors@theporch.com
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 06:25 AM 2/5/99 -0800, you wrote:

> Does anyone know where to buy burnishers for cleaning relay contacts?

> Thanks,

> Jim

>Jim,

I have purchased them from Contact East(<http://www.contact-east.com/>), TechniTool(<http://www.techni-tool.com/>), and Specialized Products Company (<http://www.specializedproducts.com/ecommerce/shop/>). The 210X316 or 054X600 from Specialized are cheap and especially handy for working on intalled relays and cleaning up wafer switches etc. Another thing that is good on wafers is the lapping film used for polishing fiberoptic connectors. Its usually available in 15u, 3u, and .3u and you can cut little pieces to fit the job. Hope this helps.

Ed Zeranski This is a private opinion or statement.
home email: ezeran@cris.com , ICQ # 3255293

Message-Id: <199902051715.LAA02381@jackatak.theporch.com>
From: listown@jackatak.theporch.com (Mail List Owner)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ADMINISTRIVIA: Using The Archives
Date: Fri, 5 Feb 99 11:15:01 CST

Gang-

!!!THIS INFORMATION HAS CHANGED!!!!

!!!SAVE THIS FILE FOR FUTURE REFERENCE!!!!

This periodic post is designed to help everyone gain more value from their boatanchors subscription.

Often I receive an email request, or I read on the list, of someone who is aware there is an archive available with some special files with special information that is of a more permanent nature than a post to the list, but who is unaware of how to retrieve these gems.

In the archives, there are cross-reference tables for Tubes, Military Equipment Nomenclature, suggestions for restorations and modifications to our beloved fire bottle rigs, and some wonderful stories of real adventures and the people involved.

These files may be accessed by the Web... quickly and easily.
These files can also be accessed by email.

For WWW access:

- go to <http://www.theporch.com>
- select "ListProc Web Interface"
- on your first time there, click "Register For Full Account"
- follow the instructions, and BE SURE you use the email address that you have your BoatAnchors mail addressed to -- this interface will work ONLY for members of the list!

Once registered, you can:

- search the archives of previous posts (so far we haven't loaded all the previous posts online, but that is in the works;
- download the index of files;
- retrieve individual files
- manage your subscription via the web interface

AWESOME!

For email access:

Step One:

send an email (leave the subject blank, or, if your mailer
requires a subject, type a single character, like "a" in
the subject box) to:

listproc@sco.theporch.com

Step Two:

in the body type:

index boatanchors

NOTE: The index **includes** all the previous articles now available
through the web interface, so the index is HUGE and difficult
to search -- the web interface is much easier.

Step Three:

after checking out the index for files of interest, and finding
the one or more you want to have sent to you, send another
email to:

listproc@sco.theporch.com

and, in the body, type:

get boatanchors file.name

where you substitute the name of the file from the index
for "file.name"

This should get you off to a good start. If you encounter any problems,
please let me know at the address below.

--

73

Jack, W4KH/Mobile - - - Mailing List Archiver/Owner - - -

listtown@jackatak.theporch.com - "Plus ca change, plus c'est la meme chose"

"Il n'y a que les idiots qui ne changent jamais d'idee"

Fri Feb 5 11:15:01 CST 1999

Message-ID: <36BB2A29.CDD589B6@esslink.com>

Date: Fri, 05 Feb 1999 12:28:09 -0500

From: Sandy Gerli <angerli@esslink.com>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Entry-Level Scope For Sale

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi,

Conar Model 255 solidstate O 'scope, with manual and complete set of probes. In excellent shape.

Asking \$75 plus shipping.

--

Sandy Gerli, AC1Y
500 Country Club Road
Avon, CT 06001-2406
(860) 675-5566
E-Mail: angerli@esslink.com

Life Member: ARRL, QCWA
Collins Collectors Association
Hallicrafters Collectors Association

"Boatanchors are Ham Radio's living history!
Get in touch with 'em. Restore something! Smell that hot solder!
Sure beats booze. And, you can get up afterwards..."

Date: Fri, 5 Feb 1999 11:59:32 -0600 (CST)
From: Sheldon Wheaton <swheaton@sky.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: TBS, DAK, & info needed for BB-35 restoration
Message-ID: <Pine.GS0.3.96.990205115159.18586A-100000@sky.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I was recently contacted by a volunteer working on the Battleship TEXAS (BB-35) restoration, and he is looking for some equipment and possibly info on the appropriate LORAN unit to use for the display restoration. I will just include his message below. This would be a great cause to support if you have a junker TBS remote control or DAK radio.

I think a scanned photo (even from the manual) of the TBS control box would even be a big help, if someone could provide it.

I would think that Charlie would also be interested in any other useful information that anyone could provide in support of the restoration efforts.

Thanks & 73, Sheldon KC0CW

Forwarded inquiry/request follows:

I am looking for radio equipment for the Battleship TEXAS, BB-35, near Houston, TX. I am a 12 year volunteer aboard the ship. An ex-Air Force officer but a historian at heart.

The needed equipment:

1. TBS-5 or TBS-7 Remote Control Unit. (BB35 has the TBS-5 unit in the Radio Transmitter Room - exterior wise it is in great shape
2. Radio Direction Finder: DAK-1
3. LORAN receiver - unknown id but any WWII unit. Would consider a just post WWII unit

The equipment is needed for the Radio Room that is on the Navigation Bridge.

The equipment is part of a restoration of the 4 compartments on the Nav Bridge.

The equipment does not need to function. The need is for static display. If a gutted cabinet is available that is great.

I will pass on any availability to the TEXAS Parks and Wildlife Dept, an agency of the state government.

Money is available for the restoration

e-mail me at chuckm@wt.net

End of BOATANCHORS Digest 2415

>From shimshon@sco.theporch.com Sat Feb 6 10:04:11 1999 -0600
Date: Fri, 5 Feb 1999 23:43:11 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 2416
Message-Id: <19990206053330.2E630A1E7@devel43.theporch.com>

BOATANCHORS Digest 2416

Topics covered in this issue include:

- 1) Re: TBS, DAK, & info needed for BB-35 restoration
by William Donzelli <william@ans.net>
- 2) Re: Relay Tool

- by "Bill Riches" <briches@bellatlantic.net>
- 3) National "JC" COIL (3.5 - 7.3 Mc) for ? HRO
by AviDov@aol.com
 - 4) WTB: Heath MR-1 & MT-1
by "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
 - 5) 470uF/450v caps for \$2.25
by "William L. Fuqua III" <wlfluqu00@pop.uky.edu>
 - 6) Atlas History Lesson
by "Al Fritsche" <fritsche@email.msn.com>
 - 7) Swan User's Site
by "ROBERT F. KEMP" <rkemp@mr.net>
 - 8) ?what BA's use 4CX300A's?
by Phil Mills <pmills@a.crl.com>
 - 9) Marconi xmtr info needed
by Phil Mills <pmills@a.crl.com>
 - 10) Puyallup Hamfest Date Request
by "Jim Hall" <jahall@micron.net>
 - 11) Frequency effects in spiral cut film resistors.
by "Barry L. Ornitz" <ornitz@tricon.net>
 - 12) Re: Buzzing Dow Key help!
by "Arden Allen" <gumbear@pacbell.net>
 - 13) RE: Puyallup Hamfest Date Request
by "Jim Berry" <basalop@gte.net>
 - 14) Re: How things used to be
by "Arden Allen" <gumbear@pacbell.net>
 - 15) Re: Resistors and designs
by "Arden Allen" <gumbear@pacbell.net>
 - 16) They're Still There
by Dick Dillman <ddillman@igc.apc.org>
 - 17) Turn Counter
by Dave Jordan <wa3gin@erols.com>

Date: Fri, 5 Feb 1999 13:07:18 -0500 (EST)
From: William Donzelli <william@ans.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: TBS, DAK, & info needed for BB-35 restoration
Message-Id: <Pine.GSO.3.96.990205130407.6914B-100000@titan.purch.ans.net>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

> 3. LORAN receiver - unknown id but any WWII unit. Would consider a just
> post WWII unit

Probably a DAS of some sort, but he may have to figure out which of the
two flavors (WE or GE) was used. There is a remote chance a DBS was
installed VERY late in the war, as well.

> The equipment does not need to function. The need is for static display.
> If a gutted cabinet is available that is great.

But a working box, especially LORAN, would be much more fun!

William Donzelli
william@ans.net

Message-ID: <02c801be5137\$18d7ce80\$a35b9ed1@oemcomputer>
From: "Bill Riches" <briches@bellatlantic.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Relay Tool
Date: Fri, 5 Feb 1999 13:40:07 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

> Does anyone know where to buy burnishers for cleaning relay contacts?

Jensen Tool

73, Bill WA2DVU

From: AviDov@aol.com
Message-ID: <58006f7c.36bb3d45@aol.com>
Date: Fri, 5 Feb 1999 13:49:41 EST
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Subject: National "JC" COIL (3.5 - 7.3 Mc) for ? HRO
Content-type: multipart/mixed;
 boundary="part0_918240582_boundary"

This is a multi-part message in MIME format.

--part0_918240582_boundary
Content-ID: <0_918240582@inet_out.mail.aol.com.1>
Content-type: text/plain; charset=US-ASCII

This is to correct my 2/2 post asking for identity of above plug in set, for
an obscure
National receiver. The panel is painted smooth grey and the nameplate includes
a

tuning curve plotted for dial settings from 0 to 500 and a chart to write in logs.

Under the chart is inscribed " J192".

The contacts for the 4 coils are mounted in tan melmac and marked JC 1 thru JC 4.

I need to know the "end item application" (receiver) this is part of and vintage. 73

--part0_918240582_boundary

Content-ID: <0_918240582@inet_out.mail.aol.com.2>

Content-type: message/rfc822

Content-transfer-encoding: 7bit

Content-disposition: inline

From: AviDov@aol.com

Return-path: <AviDov@aol.com>

To: boatanchors@theporch.com

Subject: National "J"Coil for HRO-?

Date: Tue, 2 Feb 1999 13:07:29 EST

Mime-Version: 1.0

Content-type: text/plain; charset=US-ASCII

Content-transfer-encoding: 7bit

Need to know which version of the HRO series uses the J (3.5- 7.3Mc) Coil Set.

The front panel has a smooth grey paint finish which suggests it may be for HRO-7. 73

--part0_918240582_boundary--

Message-ID: <21B46CBD022AD1118F0500805F15A06801106674@STPMSX05.stp.guidant.com>

From: "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: WTB: Heath MR-1 & MT-1

Date: Fri, 5 Feb 1999 14:24:23 -0600

MIME-Version: 1.0

Content-Type: text/plain

Would like to find a clean Heathkit MR-1 and MT1 + power supply. Prefer good physical and operational condition. Thanks,

73, Scott WA9WFA in Saint Paul Minn

Date: Fri, 5 Feb 1999 16:05:23 -0500 (EST)

Message-Id: <199902052105.QAA05791@pop.uky.edu>

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: "William L. Fuqua III" <wlfuqu00@pop.uky.edu>
Subject: 470uF/450v caps for \$2.25

Noticed that All Electronics is selling
470uF/450Volt electrolytics 10/\$22.50 ...
Catalog number EC-4745. I got some for my
single 3-500Z amplifier power supply. These
have 1995 date code on them and are made
by Nichicon #LGQ2W471MHSC.

Just thought I'd pass on the information.
The catalog price is 10/\$40....

73
Bill wa4lav

William L. Fuqua III P.E. E-mail WLFUQU00@POP.UKY.EDU Phone (606) 257-4155
Department of Physics and Astronomy CP-177 Chem. Phys. Bldg.
University of Kentucky , Lexington, Ky 40506-0055

Message-ID: <008c01be5150\$906dc8a0\$e0f5fed0@default>
From: "Al Fritsche" <fritsche@email.msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Atlas History Lesson
Date: Fri, 5 Feb 1999 15:36:47 -0600

Thanks to all that replied...Now on with the real boatanchors...
Al
KD5CML

Message-ID: <36BB8A4F.415F@mr.net>
Date: Fri, 05 Feb 1999 16:18:23 -0800
From: "ROBERT F. KEMP" <rkemp@mr.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Swan User's Site
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hello all.
Is there a Swan User's site?
If so, send me an e.mail about it.
Thanks to all.

Bob

Message-Id: <3.0.1.32.19990205171616.00692f90@a.crl.com>
Date: Fri, 05 Feb 1999 17:16:16 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: Phil Mills <pmills@a.crl.com>
Subject: ?what BA's use 4CX300A's?
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Anyone know what BA's might use 4CX300A's?

thanks & 73,
Phil

Phil Mills AB5TH
pmills@a.crl.com
Friendswood, TX

Message-Id: <3.0.1.32.19990205171512.0068c840@a.crl.com>
Date: Fri, 05 Feb 1999 17:15:12 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: Phil Mills <pmills@a.crl.com>
Subject: Marconi xmtr info needed
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Thanks to the kindness and generosity of one Dave Stinson,
I now have 4 tall Marconi transmitters in my garage. They
are TH-1B, 2 that cover 13 to 20 mc., and 2 that cover 20 to 28 mc.
These hummers must have been in the 8 to 10 KW range....they
used a pair of WL-5736 finals driven by four (yes, 4) 813's.
I would like to attempt to restore two of them, one for each
frequency range and believe that there is enough between the
units to do so.

Problem is....I need a manual or some kind of tech documentation.
If anyone can recommend a source I'd certainly like to hear from
you.

Also, Dave is keeping 2 units and 2 units have gone to another BA fan so I will certainly share any documentation I get with them.

thanks & 73,
Phil

Phil Mills AB5TH
pmills@a.crl.com
Friendswood, TX

From: "Jim Hall" <jahall@micron.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Jim Hall" <jahall@micron.net>
Subject: Puyallup Hamfest Date Request
Date: Fri, 5 Feb 1999 17:06:14 -0700
Message-ID: <01be5164\$82ee7e40\$8a9313d1@rothead.micron.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I need to know the date of the upcoming Puyallup (Washington) hamfest. I hope to attend and increase my boatanchor ranking!

Jim W4TVI

From: "Barry L. Ornitz" <ornitz@tricon.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Jack G. F. Hill" <listown@jackatak.theporch.com>
Subject: Frequency effects in spiral cut film resistors.
Date: Fri, 5 Feb 1999 21:51:20 -0500
Message-ID: <01be517b\$931affc0\$a24562d8@ornitz.dpnet.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="utf-8"
Content-Transfer-Encoding: 7bit

In yesterday's post I mentioned that the spiral cut in the deposited film of new film resistors could create an inductance of between 5 and 50 nanohenries. But I also noted that the shunt capacitance of about 3 picofarads tended to dominate the reactance effects.

To illustrate this, I calculated the effective reactance of a collection of resistors from 1 ohm to 1 Megohm. I used a series inductance of 25 nH and

a shunt capacitance of 3 pF. I did not model the lead inductance (maybe in the future). I plotted the results on a graph which can be downloaded from the archives like Jack discussed in the most recent digest. The file is called "resist.gif".

>From the curves, it appears that around 100 ohms, the inductive and capacitive effects tend to be minimal up to quite high frequencies. For resistors below 100 ohms, the inductive effects predominate, and for resistors above 100 ohms the capacitive effects dominate. If you remember that the shunt capacitance is also present in carbon composition resistors, it is easy to see why film resistors are an excellent replacement for the old resistors.

73, Barry WA4VZQ ornitz@tricon.net

{Note to his eminence Jack, please move the file from "incoming" to "boatanchors". Thanks!}

Message-Id: <199902060416.UAA16401@mail-gw6.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Buzzing Dow Key help!
Date: Fri, 5 Feb 1999 20:18:47 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hello Marty;

> Big buzz city

Seems there's two things that will make an AC relay get weird. A shorted turn or two thus weakening the flux slightly OR something changed in the assembly of the relay that has changed the magnetic circuit (flux path) just enough to cause a problem. I once mounted an AC relay with a large steel washer underneath as a spacer. Got the buzz problem. Took the washer out and everything OK again. Try to scratch your head in more than one place, those lop-sided bald spots look funny.....hi!

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

From: "Jim Berry" <basalop@gte.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Puyallup Hamfest Date Request
Date: Fri, 5 Feb 1999 20:28:20 -0800
Message-ID: <005501be5189\$2044c5e0\$f144fdd0@default>

MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hi Jim and Gang,

I pulled the flyer out of a pile of stuff on my desk.
March 11 @ 0900. Admisson - \$6.
I'll be there stirring through the goodies.

73 Jim K7SLI

> I need to know the date of the upcoming Puyallup (Washington) hamfest. I
> hope to attend and increase my boatanchor ranking!
>
> Jim W4TVI
>
>

Message-Id: <199902060444.UAA25877@mail-gw6.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: How things used to be
Date: Fri, 5 Feb 1999 20:46:44 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi Art;

> The old way: I had a conversation with a person who designed radios and
TVs
> in the late 40's. He said they would build a prototype and then start
> removing resistors and capacitors from the prototype until it stopped
working.
> They would put back the last part removed and that was their design. He
> claimed that you could shoot holes in the thing and it would still work
once
> you removed all the 'non-essential' parts.

I don't remember how many times I've heard that one. It's better known as
the "Old Man Muntz (of Muntz Television) method of engineering". It's
probably only obliquely true and was reinforced by Muntz Television's
reputation for cheap construction and poor performance.

As far as *reliability analysis* goes, it is a major engineering specialty best done by those who are strong in mathematics and trained in statistics. From what little I know of it, it is properly done with sophisticated theorems (Monte Carlo Analysis being used to estimate the effect of component tolerances and so forth) and supported by librarys full of test data.

Now that computers are the brain substitutes for many engineers you can get elegant looking and reading reports full of erroneous conclusions. It still takes a practiced expert to get it right, same as it was in the BA days.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <199902060507.VAA05870@mail-gw6.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Resistors and designs
Date: Fri, 5 Feb 1999 21:09:52 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

> The thing that has made digital design so successful is that, unlike analog.....

That reads like a non sequitur if I've ever heard one. Why not say, "The thing that made the Wright Brothers so successful...."? Digital design is merely a way of making analog circuits perform numerical operations which are only as good as the "junk" that goes in. Next time your Windows 9*^%\$#@! machine crashes tell someone else how great digital is. What makes analog so attractive is its sublime simplicity and PREDICTABILITY. When you have some spare time, go unwind your hard drive and fix the bugs in your OS!! Now you know where the Y2K paranoia comes from.
Grrrrrrrrrrrr.....

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Date: Fri, 5 Feb 1999 21:32:27 -0800 (PST)
Message-Id: <2.2.16.19990205213039.0e7f8d5a@pop.igc.org>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
To: Old Tube Radios <boatanchors@theporch.com>
From: Dick Dillman <ddillman@igc.apc.org>
Subject: They're Still There
Cc: Whispell@aol.com, Keyframe3@aol.com

Tonight for the first time after the dreaded "end of Morse" on 1 February I've had a chance to cruise the maritime mobile bands with the 51J-4. I'm happy to report that Morse is still very much alive and well in commercial maritime service. True, nobody listens carefully for that faint, wavering SOS on 500kc during the silent periods any more. But if you're bouncing around on a rust bucket in any of the world's oceans with a telegram on the hook... why just warm up those 813s, call up a coast station and pound it out in Morse like a real radioman.

My brief troll of the 6, 8 and 12Mc bands at about 2100pst netted the following:

6376.0kc - WCC/WNU Slidell, LA
6382.8kc - EAD2 Madrid, Spain
8444.5kc - KFS San Francisco
8565.0kc - ZSJ South Africa
8570.0kc - WNU43 Slidell, LA
8618.0kc - KPH San Francisco
8662.0kc - TAH Istanbul, Turkey (!! - First time I've heard that one)
12695.5kc - KFS San Francisco
13002.0kc - KPH San Francisco

So they're still there. Around the world women and men still wear the earphones and listen for the calls from ships at sea. Listen to them now, while you still can.

Regards,

Dick

Dick Dillman
<ddillman@igc.apc.org>
WPE2VT W6AWO
Collector Of Heavy Metal:
Harleys, Willys and Radios Over 100lbs.

Message-ID: <36BBD28B.2E10CC34@erols.com>
Date: Sat, 06 Feb 1999 00:26:35 -0500
From: Dave Jordan <wa3gin@erols.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Turn Counter
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi Folks,

I realized today that sending out a part number for a turn counter that is several decades old isn't going to be much help to anyone trying to find such an item. Perhaps a picture is worth a 1,000 words so please find the attached picture of the subject counter I'm in search of.... In the picture the little plastic window below the counter is supposed to be mounted into the panel and the counter mechanism is mounted behind the panel. The two green things at the top are female banana jacks that I used to hold the counter level over my scanner.

If anyone has something that even approaches similarity I'd be interested.

I'm homebrewing a 4-1000AMP, have two counters for the vacuum variable caps but need a third for the rotary inductor.

Thanks In Advance,
dave

End of BOATANCHORS Digest 2416
